

A-9508B  
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Hameed A. NASEEM et al.

Appln. No.:

Filed: Herewith

For: METHOD OF DOPING SILICON, METAL DOPED SILICON,  
METHOD OF MAKING SOLAR CELLS AND SOLAR CELLS

\* \* \*

INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

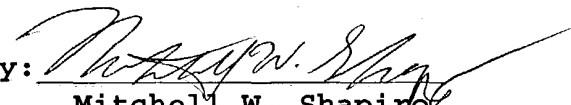
Sir:

Applicants wish to make record the documents cited in predecessor Application Nos. 10/029,859 filed December 31, 2001 and 08/855,229 filed May 13, 1997, whether cited by Applicants or by the Patent Office. The documents are listed on the attached Form-1449.

Respectfully submitted,

MWS:lmb:jb

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July 14, 2003

<b>FORM PTO-1449</b>				Atty. Docket No. <b>A-9508B</b>	Appln. No.		
<b>LIST OF DOCUMENTS CITED BY APPLICANT</b>				Applicant <b>Hameed A. NASEEM et al.</b>			
				Filing Date <b>HEREWITH</b>	Group		
<b>U.S. PATENT DOCUMENTS</b>							
Examiner Initial		Document Number	Date	Name	Class	Sub-class	Filing Date
	AA	<b>5,646,424</b>	<b>07/08/97</b>	<b>Zhang et al.</b>	<b>257</b>	<b>66</b>	
	AB	<b>5,595,944</b>	<b>01/21/97</b>	<b>Zhang et al.</b>	<b>437</b>	<b>41</b>	
	AC	<b>5,543,352</b>	<b>08/06/96</b>	<b>Ohtani et al.</b>	<b>438</b>	<b>487</b>	
	AD	<b>4,165,558</b>	<b>08/28/79</b>	<b>Armitage, Jr. et al.</b>	<b>438</b>	<b>93</b>	
	AE	<b>5,538,564</b>	<b>07/23/96</b>	<b>Kaschmitter</b>	<b>438</b>	<b>93</b>	
	AF	<b>4,190,852</b>	<b>02/26/80</b>	<b>Warner, Jr.</b>	<b>438</b>	<b>80</b>	
	AG	<b>5,589,008</b>	<b>12/31/96</b>	<b>Keppner</b>	<b>438</b>	<b>98</b>	
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	AI	<b>5,730,808</b>	<b>03/24/98</b>	<b>Yang et al.</b>	<b>438</b>	<b>97</b>	
	AJ	<b>5,700,333</b>	<b>12/23/97</b>	<b>Yamazaki et al.</b>	<b>438</b>	<b>97</b>	
	AK	<b>5,562,781</b>	<b>10/08/96</b>	<b>Ingram et al.</b>	<b>438</b>	<b>96</b>	
<b>FOREIGN PATENT DOCUMENTS</b>							
Examiner Initial		Document Number	Date	Country	Class	Sub-class	Translation
	AL	<b>WO97/13280</b>	<b>04/10/97</b>	<b>WIPO</b>			
<b>OTHER</b> (including author, title, date, pertinent pages, etc.)							
	AM	<b>HAQUE, M. et al., "Hydrogenated Amorphous Silicon/Aluminum Interaction at Low Temperatures," Materials Research Society Symposium, Vol. 258, 1992, pp. 1037-1042.</b>					
	AN	<b>HAQUE, M. S. et al., "Degradation and Failure Mechanisms of a-Si:H Solar Cells with Aluminum Contacts," IEEE First ECPEC, 1994, pp. 642-645.</b>					
	AO	<b>LUQUE, A. et al., "Internal Quantum Efficiency of Back Illuminated n<sup>+</sup>pp<sup>+</sup> Solar Cells," Revue De Physique Appliquee, December 1978, pp. 629-632.</b>					
Examiner			Date Considered				
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AM	Czbatyj, W. et al., "Comparison of low temperature polysilicon crystal growth on low cost substances," <u>J. Vac Sci Technol. A</u> , Vol. 9, No. 2, Mar/Apr 1991, pp. 294-298.						
AN	Mayer & Lau, "Metallization and Phase Diagrams," <u>McMillan Publishing</u> , 1998, pp. 276-283.						
AO	Francis, David H., "Trends in Flip Chip and Advanced Interconnection," <u>1997 International Conference on Multichip Modules</u> , pp. 25-28.						
AP	Al-Nuaimy, E.A., "Excimer laser crystallization and doping of source and drain regions in high quality amorphous silicon thin film transistors," <u>Appl. Phys. Lett.</u> 69(25), 16 December 1996, pp. 3857-3859.						
AQ	Smith, P.M. et al., "Excimer laser crystallization and doping of silicon films on plastic substrates," <u>Appl. Phys. Lett.</u> 70(3), 20 January 1997, pp. 342-344.						
AR	Konenkamp, R. et al., "Reversible Doping of Hydrogenated Amorphous Silicon," <u>Solid State Communications</u> , 1990, Vol. 3, No. 5, pp. 323-326.						
AS	Saito, N. et al., "Doping effects of aluminum on the properties of hydrogenated amorphous silicon-carbon alloy films prepared by magnetron sputtering," <u>Philosophical Magazine B</u> , 1990, Vol. 62, No. 5, pp. 527-536.						
AT	Berry, W.B., "Low Temperature Diffusivity for Aluminum and Silver in Amorphous Silicon."						
AU	Lathrop, J.W. et al., "Failure Mechanisms in Amorphous Silicon Solar Cells."						
AV	Fukada, N., "Thermal Degradation of a-Si:H Solar Cells," <u>Technical Digest of the International PVSEC-1</u> , Kobe, Japan, pp. 229, 231.						
AW	Lathrop, J.W., "Accelerated Stress Testing of a-Si:H Cells," <u>Proc. 2nd Int. Photovoltaic Science and Engineering Conference</u> , Beijing, China, August 1986, pp. 386-389.						
AX	Delahoy, A.E., "Amorphous Silicon-Aluminum Materials," <u>Research on High Efficiency Single Junction Monolithic Thin Film a-Si Solar Cells</u> , Nov. 1985, pp. 13-20.						
AY	Willing, F. et al., "Thermal Stability of Interconnected a-Si:H Solar Modules."						
AZ	Baert, K.A. et al., "Amorphous-Silicon Solar Cells with Screen-Printed Metallization," <u>IEEE Transactions on Electron Devices</u> , Vol. 37, No. 3, March 1990, pp. 702-706.						
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**U.S. PATENT DOCUMENTS**

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AM	Ishihara, S. et al., "Low-temperature crystallization of hydrogenated amorphous silicon films in contact with evaporated aluminum electrodes," <u>J. Appl. Phys.</u> 62(3), 1 August 1987, pp. 837-840.
AN	Haque, M.S. et al., "Aluminum-induced crystallization and counter-doping of phosphorous-doped hydrogenated amorphous silicon at low temperatures," <u>J. Appl. Phys.</u> 79(10), 15 May 1996, pp. 7529-7536.
AO	Haque, M.S. et al., "Aluminum-induced degradation and failure mechanism of a-Si:H Solar Cells," <u>Solar Energy Materials and Solar Cells</u> , June 1996, pp. 543-555.
AP	Haque, M.S. et al., "Interaction of aluminum with hydrogenated amorphous silicon at low temperatures," <u>J. Appl. Phys.</u> 75(8), 15 April 1994, pp. 3928-3935.

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AN	Gong et al., "Al-doped and Sb-doped polycrystalline silicon obtained by means of metal-inductied crystallization", Nov. 1, 1987, Journal of Applied Physics, vol. 62, no. 9, pp. 3726-3732.
AO	
AP	

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